# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 10/631,873 | 07/30/2003 | Vivek Kulkarni | 128916 (GEN-0373) | 1796 |

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| EXAMINER |
|---|
| BAHTA, KIDEST |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 10/631,873 | KULKARNI ET AL. |
| | Examiner | Art Unit |
| | Kidest Bahta | 2125 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

### Claim Rejections - 35 USC § 103

1.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a
> whole would have been obvious at the time the invention was made to a person having
> ordinary skill in the art to which said subject matter pertains.  Patentability shall not be
> negatived by the manner in which the invention was made.

2.      Claims 1-6, 8, 10-19, 21-24, 26-27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Miyaji et al. (US 7,2003/2030998) in view of Brotto (US 7,102,303) and in

further view of Hodorowski (US 5,530,643).

Regarding claims 1, 15, 26 and 30, Miyaji discloses that an interface for programming a

motor control of a motor, comprising: a microcontroller in signal communication with a first

signal port and a second signal port, the first signal port adapted for receiving a signal from a

computer, the second signal port having a signal terminal adapted for sending a signal to the

motor control  (Fig. 2); and a solid state relay in signal communication with the microcontroller

and the power terminal, the solid state relay having a control element responsive to first and

second signals from, respectively, to the motor control (Fig. 3-Fig. 6).

Miyaji fails to discloses a power terminal adapted for sending power to the motor control;

the microcontroller for turning on power and for turning off power.

Brotto discloses a power terminal adapted for sending power to the motor control

(column 2, lines 51-56); the microcontroller for turning on power and for turning off power

(column 3, lines 22-30).

Miyaji and Brotto fail to disclose the microcontroller is adapted for sending a

programming signal from the computer to the motor control in response to the programming

signal being sent within a defined time following the control element turning on power to the

motor control

Hodorowski discloses the microcontroller is adapted for sending a programming signal

from the computer to the motor control in response to the programming signal being sent within

a defined time following the control element turning on power to the motor control (Fig. 5B, Fig.

5, i.e., timers; Fig. 6, column 6, lines 17-65)

It would have been obvious to a person of ordinary skill in the art at the time of invention

was made to modify the teachings of Miyaji with the teachings of Brotto and Hodorowski  in

order to provide a distributed control system and a distributed control method capable of

decreasing a load of a host controller and decreasing a communication load.


***Regarding claims 4-6, 10-11, 14, 16-19, 24 and 27, Miyaji discloses,***


4. The interface of claim 1, further comprising: a comparator in signal communication with the

second signal port and the microcontroller (Fig. 6); wherein an output of the comparator is

representative of a cable connection state between the motor control and the motor (Fig. 1);

wherein an input value to the comparator is compared against a threshold value (Fig. 2-3);

wherein the output of the comparator is representative of the cable connection state being open

in response to the threshold value exceeding the input value ([0063]).


5. The interface of claim 4, further comprising: an impedance network in signal communication

with the comparator and the microcontroller; wherein the impedance of the impedance network

is responsive to the microcontroller, and the value of the threshold level is responsive to the

impedance of the impedance network ([0067]).

6. The interface of claim 5, wherein: the impedance of the impedance network is adjustable by a
user via a signal from the computer ([0070]).

10. The interface of claim 1, further comprising: a signal converter in signal communication with
the microcontroller and the first signal port for converting a logical 0 signal and a logical 1 signal
from an RS232 format to a format recognizable by the microcontroller, and vice versa (Fig. 3, It
is inherent that the signal code 0 and 1 has to covert to recognizable format in computer field).

11. The interface of claim 1, further comprising: first and second status lights in signal
communication with and responsive to the microcontroller, the first status light representative of
the interface being ready to accept commands from the computer, the second status light
representative of the interface not being ready to accept commands from the computer
(([0052]).

14. The interface of claim 1, further comprising: a reset network in signal communication with
the first signal port and the microcontroller, the reset network having a reset control element, the
reset control element being responsive to a reset command from the computer, and the
microcontroller being responsive to the reset control element ([0058]-[000064]); wherein a reset
command signal received at the reset control element from the computer results in a reset
signal being received at the microcontroller and a ready signal being generated by the
microcontroller, the ready signal indicating that the interface is ready to accept commands from
the computer ([0067]).

16. The method of claim 15, further comprising: in response to the programming signal from the computer being received at the interface outside of the defined time following the power being turned on to the motor control, preventing the motor control from entering a test mode and from acting upon the programming signal ([0072]).

17. The method of claim 15, further comprising: receiving at the interface a logical 0 and a logical 1 signal from the computer in RS232 format; converting the logical 0 and logical 1 signals received from the computer from RS232 format to a format recognizable by a microcontroller at the interface; and sending the converted signals to the microcontroller for processing (Fig. 3, It is inherent that the signal code 0 and 1 has to covert to recognizable format in computer field).

18. The method of claim 15, further comprising: sending from the interface a cable test signal on a signal line to the motor control, and receiving in response thereto a return test signal on a cable check line ([0091]); comparing the value of the return test signal to a comparator threshold value (Fig.3); and in response to the comparator threshold value exceeding the value of the return test signal, providing a cable test failure signal ([0100]).

19. The method of claim 18, further comprising: adjusting the comparator threshold value via the computer ([0070]).

27. The method of claim 26, further comprising: adjusting the comparator threshold value via the computer (Fig. 1).

Regarding claims 3, 22 and 23 Miyaji discloses communicating the programming signal from the computer to the motor control in the absence of an optoelectric isolator ([0042]).

**Regarding claims Brotto discloses 8, 12-13, 24,**

8. The interface of claim 1, wherein: the microcontroller further comprises erasable and

programmable memory for storing firmware used for operating and controlling the motor;

wherein the firmware is upgradeable via the computer (Column 5, lines 8-15).


12. The interface of claim 1, wherein: the second signal port consists of eight terminals, wherein

six of the eight terminals may function as signal terminals and two of the eight terminals may

function as power terminals (column 2, lines 51-67).


13. The interface of claim 1, wherein: the defined time is equal or less than 10 milliseconds

(Abstract).



3.      Claims 7, 9, 20, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Miyaji (US 2003/0230998)in view of Brotto (US 7,102,303) and Hodorowski (US

5,530,643) as applied to claims 1, 4-6, 8, 15-19, 26-27 above, and further in view of Olesen et

al. (US 2002/0151993).

Regarding claims 1, 4-6, 8, 15-19, 26-27, and 29 Miyaji and Brotto disclose as state

above in Par. 2 but Miyaji and Brotto fail to disclose the limitations of claims 7, 9, 20, 25, and

28. However, Olesen discloses the limitations of claims 7, 9, 20, 25, and 28 as follows: the

computer is adapted for signal communication with the Internet Fig. 1).

It would have been obvious to a person of ordinary skill in the art at the time of invention

was made to modify the teaching of Miyaji and Brotto with the teachings of Olesen in order to

generating the configuration file on the server means that it is now possible to configure the

motor controller directly from the panel of the motor controller via the Internet server provided

that the motor controller is connected to the Internet.

4.      Claims 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaji

(US 2003/0230998) in view of Brotto (US 7,102,303) and view of Hodorowski (US 5,530,643)

as applied to claims 1, 3, 15 and 21 above, and further in view of Conoval (US 6,400,903).

Regarding claim 1, 15 and 22, Miyaji and Brotto disclose as state above in Par. 2 but

Miyaji and Brotto fail to disclose the limitations of claims 2 and 22. However, Conoval discloses

the limitations of claims 2 and 22 as follows:  a plurality of signal paths for communicating

signals between the first signal port and the second signal port, each signal path adapted for

signal communication at a baud rate equal to or greater than 2400 baud (column 13, lines10-

25).

It would have been obvious to a person of ordinary skill in the art at the time of invention

was made to modify the teaching of Miyaji and Brotto with the teachings of Conoval in order to

a general purpose remote image relay method which transparently interconnects a commercial

digital camera to a local host viewer independent of specific camera communications protocols.

### Response to Arguments

Applicant's arguments with respect to claims 1-30 have been considered but are

moot in view of the new ground(s) of rejection.

### Conclusion

5.      The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

6.      Any inquiry concerning this communication or earlier communications from the examiner should be directed Kidest Bahta whose telephone number is 571-272-3737.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAG system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-fee).

Kidest Bahta

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